

A process for producing a linear α -olefin which comprises:
reacting a stoichiometric excess of a terminal C_n olefin with ethylene in the
presence of an organometallic catalyst to produce a C_{n+2} linear α -olefin, wherein
the catalyst is capable of producing a Schulz-Flory distribution of the linear α -
olefin with a Schulz-Flory constant of less than about 0.8 and wherein n is an
integer between about 3 to 20.